

REMARKS

Claims 1-73 are pending in the present application of which claims 48-73 have been withdrawn. The Office Action has rejected all of the claims under examination, 1-47. In this response, Applicant has amended claims 1, 8-9 and 12-13 for clarity. Applicant respectfully requests reconsideration in view of the following remarks.

Applicant also gratefully thanks Examiner Torres Velazquez for recognizing that claim 47 is not withdrawn. Applicant is also grateful to Examiner Torres Velazquez for withdrawing the rejections based on US Patent No. 6,645,040 issued to Rabinowicz et al. (“Rabinowicz”) because it is not prior art to this application.

Requirement for an Independent Basis for Grounds underlying Rejections

The Office Action has failed to provide an independent basis for its allegation that the claimed product is the same as or an obvious variant of a prior art product and instead assumed such similarity by overlooking differences, such as in processes and materials, even when such differences are the reasons discussed in the specification of the present application. Applicant recognizes without objection that the focus of the examination is on determining whether the claimed product is the same as or an obvious variant of a prior art product. However, such a result cannot be presumed, and instead requires an *independent basis* (other than the applicant’s pending application) be provided for arriving at such a conclusion. See, e.g., *In re Lee*, 277 F.3d 1338, 1344-45, 61 USPQ2d 1430, 1434-35 (Fed. Cir. 2002).

The Court in *Lee* required independent evidence for the determination of unpatentability. It held that common knowledge and common sense may only be applied to analysis of the evidence, rather than be a substitute for evidence. *Lee*, 277 F.3d at 1345, 61 USPQ2d at 1435. A recent decision (*Ex parte ROBERT C. WOHLSEN and SUE MCNEILL*) of the Board of Patent Appeals and Interferences abiding by the holding of *In re Lee* is attached. This decision is by its own terms, unlike *In re Lee*, not a precedent.

The rejection of all of the pending claims by the Office Action is based on the assumption that (i) the relied upon references adequately disclose the use of polyurethane films as adhesives in laminated fabrics, and (ii) the relied upon references can be combined because the required motivation is found within the references. Both of these assumptions are wrong. Several of the relied upon references do not even mention polyurethanes as adhesives in laminated fabrics. One heavily relied upon reference mentions polyurethane as a possible adhesive in passing with a preference for polyamides instead. The only reference to

discuss the properties of polyurethanes lacks even a suggestion that polyurethanes are suitable as adhesive in laminates. It further reports unstable laminates comprising polyurethane films that required additives to prevent peeling under stress. Thus, the most detailed reference actually teaches away from use of polyurethanes as an adhesive.

The cited art is plainly insufficient to either provide a disclosure of all of the limitations of the claimed invention or to provide the required motivation to combine the cited art to make or maintain the tenuous rejections of the pending claims as is discussed in further detail herein.

Drawing Requirement

Applicants are submitting a revised Figure 6 and an amendment to the specification to comply with the Requirement. Support for the figure, including the revised portion, in the originally filed specification is found in paragraphs 45 and 52 and in Figures 11-12 and their corresponding descriptions. Paragraph 52 of the specification expressly describes sandwiching of the stretchable fabric. An amendment to the specification identifies an insert of the type disclosed elsewhere in Figure 11 in the revised Figure 6. No new matter is introduced by way of submission of this illustrative figure.

Applicants note 37 C. F. R. § 1.81 specifies that drawings are required in patent specification “where necessary for the understanding of the subject matter of the invention.” This standard was amply met and continues to be met by the fourteen figures in the specification detailing the physical properties of the adhesive in the prelamination process, placement of wire inserts, illustrative intermediates, and the finished product.

In the event, the revised Figure 6 is held to introduce new matter, Applicant respectfully requests the Drawing Requirement be withdrawn because it lacks an independent basis. Specifically, no basis is provided to indicate what if any understanding of the invention is lacking in the drawings and the originally filed specification. Sandwiching of a layer between two layers is well understood in the relevant art and sandwiched layers are illustrated in the cited art within the background section of the specification, which includes some of the references relied upon by the Office Action itself. One such reference, US Patent No. 5,447,462 issued to Smith et al. (“Smith”) is actually incorporated into the specification of the present application in its entirety to provide any necessary background information well known to one having ordinary skill in the art, such as the formation of a sandwich (see Figure 13-14 for insert 76 in Smith).

Response to Rejection of Claim 1 Under 35 U.S.C. §§ 102/103

In paragraph 4, the Office Action has cited a new reference, US Patent No. 5,234,523 issued to Marc A. Battereall (“Battereall”) “to provide a film (different from a web of an open net-like film).” Applicants initially note that Battereall cannot disclose articles claimed by the pending claims. This follows from Battereall’s clarification that its adhesive film is applied by “any of the conventional methods for doing so.” See, column 2:35-36. Therefore, articles exhibiting the desirable properties possible by prelamination are not possible by the disclosure of Battereall. To make this clear, the amended claim 1 now recites a thickness of less than 20 mils for the film. There is not evidence in the record that such a thickness of polyurethane containing film could be handled by conventional methods to yield products similar to or obvious variants of those described by Battereall.

Battereall illustrates the close relationship between the products possible by a particular process. Thus, in accordance with Battereall’s teachings it is possible to prepare laminates in which a heat sensitive layer is laminated that otherwise would be susceptible to damage by the high temperatures and pressures required for efficient manufacturing. Similarly, the claimed products incorporating an otherwise difficult to handle thin film of polyurethane as an adhesive are made possible by the present invention.

In paragraphs 8-9, the Office Action rejects claim 1 as either anticipated or obvious over Battereall. The Office Action concedes that product by process claims are “limited by and defined by the process.” Nevertheless, the Office Action states it is “the examiner’s position that the laminate of Battereall is identical to or only slightly different than the claimed laminate prepared by the method of claim(s).” This reasoning for the rejections is untenable because no independent basis is provided for this conclusory assertion. Battereall does not even identify polyurethane as its desirable adhesive or provide any indication of how to handle thin polyurethane films.

The preferred adhesive materials of Battereall are polyamides. Battereall does mention polyurethane films as possible adhesives in passing and discloses their application by conventional methods, only. The claimed invention does not use conventional methods for applying the adhesive. Further, the specification of the present application clarifies that application by prelamination is important to make the desired products. Battereall does not enable the use of polyurethane films as adhesives.

In contrast to the limited disclosure of Battereall, distinctive properties in products made by prelamination are described, for example, in the published instant application in paragraph 15. Therefore, Battereall cannot be presumed to disclose either a process or the materials to make (the same as or obvious variants of) products covered by claim 1.

Response to Rejection of Claims 1-14, 27, 32-34 Under 35 U.S.C. §103(a)

In paragraph 10, the Office Action rejects claims 1-14, 27, 32-34 under 35 U.S.C. §103(a) over Smith in view of Battereal and further evidenced by US Patent No. 4,776,916 issued to Prunesti ("Prunesti"). Of these rejected claims, claims 1 and 27 are independent claims. In paragraphs 11-13 the Office Action rejects various dependent claims. However, in view of the patentability of independent claims 1 and 27 and the continued reliance on the Smith and Battereall in these rejections requires that they be withdrawn as is demonstrated herein.

Applicant already noted that Battereall cannot be presumed to disclose articles claimed by the claim 1 or any claim dependent upon it in view of the limited thickness (less than about 20 mils) of the adhesive film used to make the products covered by claim 1 and lack of any disclosure in Battereal of a method for handling such thin polyurethane films. Because none of the other references considered separately or in combination cure this deficiency, the rejection of claim 1 must be withdrawn. The Office Action notes on page 7 that the ranges for the thickness of adhesive film comprising polyurethane are "broad and encompass typical values that are found in the prior art." Application respectfully disagrees. The values in the cited art are for thicknesses of adhesives in the form of powders in Prunesti, which is not comparable to a film. Prunesti expressly requires particle sizes in the adhesive to be no larger than eighty microns. A film simple does not satisfy such a limitation. Battereal does not discuss thicknesses and prefers polyamides instead of polyurethane films. Smith does not even mention polyurethane as an adhesive and requires the use of webs or nets.

In the absence of even the elements of the claimed invention in the relied upon prior art, there is no motivation to combine these disparate reference that have in common nothing more in common than lamination in general. Therefore, the conclusory presumption adopted by the Office Action plainly lacks the required independent basis required for making or maintaining a rejection of claim 1. Accordingly, the rejection of independent claim 1 must be withdrawn.

Further, the rejection of independent claim 27 should also be withdrawn. None of the cited art teaches, suggests or discloses the use of a stretch fabric with an adhesive layer prelaminated thereon in a sandwich that is shaped into a cup by a bubble molding process. While sandwiches including a cup are disclosed in Smith, there is no suggestion for using anything other than preformed cups. Specifically, Smith discloses either molded cups, or cups with seams, both of which are markedly different from the product covered by claim 27.

Battereall further clarifies that its adhesive film is applied by “any of the conventional methods for doing so.” See, column 2:35-36. Therefore, articles exhibiting the desirable properties possible by prelamination are not possible by the disclosure of Battereall. To make this clear, the amended claim 1 now recites a thickness of less than 20 mils for the film. There is no evidence in the record that such a thickness of polyurethane containing film could be handled by conventional methods to yield products similar to or obvious variants of those described by Battereall.

The deficiencies of Smith or Battereall are not cured by any of the other references considered separately or in combination. Therefore, the rejection of claim 27 must be withdrawn.

In view of patentability of independent claims 1 and 27, a claim dependent upon either independent claim is also axiomatically patentable. Therefore, the rejections of claims 2-26 and 28-47 must be withdrawn.

Other references relied upon in rejection of the pending claims

The Office Action argues in the rejection of claims 15-24 and 35-45 over Smith and Battereall further evidenced by US Patent No. 5,042,176 issued to Marion F. Rudy (“Rudy”) that use of ether-based polyurethane would be obvious because Rudy discloses that ether-based polyurethane is resistant to water and moisture. However, the Office Action has impermissibly used the invention of the Applicant to fashion the argument to reject it. It is the Applicant’s insight that such an adhesive is useful in laminated products rather than that of Rudy.

The motivations for combining references forwarded by the Office Action are entirely absent in the cited art itself. Rudy itself notes, see, e.g., column 19:22-27, in the context of lamination using polyurethane that a “process which has operated satisfactorily was the co-lamination of polyvinyl vinylidene chloride copolymer and a urethane elastomer film. The inflated cushions fabricated from such material had acceptable barrier properties, but the composite delaminated under pressure.” Rudy goes on to note that the laminate unravelled under pressure. Therefore, it cannot be fairly said that Rudy discloses the advantages of using ether-based polyurethane as an adhesive. Rudy actually teaches away from such a use of thin ether-based polyurethane film.

Thus, notwithstanding the sufficiency of Smith and Battereall, Rudy is also unable to provide any techniques for handling thin films of polyurethane or even suggesting any advantages in using it as an adhesive in laminating fabrics.

US Patent No. 5,984,762 issued to Tedeschi et al. (“Tedeschi”) and US Patent No. 5,967,876 issued to Kollmanthaler et al. (“Kollmanthaler”) have been discussed in prior responses for their allegedly useful teachings of straps and wire supports respectively. Applicant maintains there is no motivation to combine them as suggested and even if combined they fail to cure the deficiencies of Smith and Battereall.

Rejoining of Withdrawn Claims

Applicant thanks the Examiner for increasing the number of claims being examined in the present application, presumably, as it became clear that their restriction did not serve any practical purpose. This is in accordance with the clear standard that the underlying purpose of imposing a restriction requirement is not to separate out claims, but to do so in order to facilitate examination. Thus, even where restriction may be otherwise proper, claims should not be restricted out if efficient examination does not require it.

To date, no particular difficulty in examining the withdrawn claims has been provided and indeed the examination of the method steps has been intense contrary to what would be expected from the presumption underlying the restriction requirement. Therefore, it is respectfully requested that all claims be examined because even at this late stage the examination of all of the claims is unaffected by such a rejoining in view of the searches undertaken.

CONCLUSION

In summary, the Office Action primarily relies upon Smith, Battereall, Prunesti, Rudy, and to a lesser extent on Tedeschi and Kollmanthaler. The last two references have been discussed in prior responses by the Applicant. Of these references, Smith and Prunesti do not even mention polyurethanes as adhesives in laminated fabrics. Battereall mentions polyurethane as a possible adhesive with no additional details and expresses a preference for polyamides. Rudy discusses polyurethane, including the preferred ether-based polyurethane of the present invention, but reports unstable laminates that required additives to prevent peeling under stress. Notably, Rudy does not even mention polyurethanes as an adhesive.

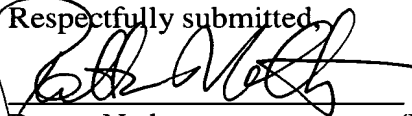
Thus, the cited art, alone or in combination discloses little about the polyurethanes as adhesives in laminated fabrics and the most detailed reference actually teaches away from such use. This is plainly insufficient to either provide a disclosure of all of the limitations of the claimed invention or to provide the required motivation to combine the cited art to make or maintain the tenuous rejections of the pending claims.

Therefore, all of the various arguments and grounds for the rejection of pending claims 1-47 have been overcome. No new matter is introduced by way of any of the amendments. Therefore all of the pending claims, including those dependent on independent claim 1 are now allowable.

No fee is believed to be due for this submission other than the fee for the Petition for a three month extension of time being filed concurrently. In the event that any additional fee is required, please charge the required fee to JONES DAY Deposit Account No. 50-3013.

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Respectfully submitted,



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